### **ENVIRONMENTAL CHEMISTS**

Date of Report: 02/18/98 Date Received: 02/06/98

Project: Metro Self Monitor, PO #M59989

Date Extracted: 02/17/98 Date Analyzed: 02/17/98

# RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as µg/L (ppb)

Sample ID	<u>M59989</u>	Method Blank
Analyte: Chromium	0.69	<0.05
Copper	0.77	<0.05
Nickel	0.52	<0.05
Zinc	0.11	<0.05

### **ENVIRONMENTAL CHEMISTS**

Date of Report: 02/18/98 Date Received: 02/06/98

Project: Metro Self Monitor, PO #M59989

## QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 802031-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.69	0.70	1	0-20
Copper	mg/L (ppm)	0.77	0.83	8	0-20
Nickel	mg/L (ppm)	0.52	0.46	12	0-20
Zinc	mg/L (ppm)	0.11	0.08	32a	0-20

Laboratory Code: 802031-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recover MS	y % Recover MSD	y Acceptance Criteria	RPD
						Criteria	KPD
Chromium	mg/L (ppm)	5	0.69	86	86	80-120	n
Copper	mg/L (ppm)	5	0.77	97	97	80-120	Ŏ
Nickel	mg/L (ppm)	10	0.52	87	81	80-120	7
Zinc	mg/L (ppm)	5	0.11	98	107	80-120	9

Laboratory Code: Laboratory Control Sample

	Reporting	Spike	% Recove	ry % Recove	ry Acceptance	e	
Analyte	Units	Level	LCS	LCSD	Criteria	RPI	)
Chromium	mg/L (ppm)	5	102	101	80-120	1	1 1 1 1
Copper	mg/L (ppm)	5	107	105	80-120	2	
Nickel	mg/L (ppm)	10	104	101	80-120	3	
Zinc	mg/L (ppm)	5	108	106	80-120	2	

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

# PJ# 802031 KJ AI

02.08-98

# SAMPLE CHAIN OF CUSTODY

Send Report To: 108 Company August Address 628 A	an Copper	Works		Contact	GENS	D Thong	25a)
City, State, Zip Scot	He w		· · · · · · · · · · · · · · · · · · ·				
Phone # (200) 782-8	77 <del>7</del> 9	FAX #_	(Zory) 3	82-4709	Da	te_2-6-98	
SITE NO.		PROJ	ECT NAME	<u>.</u>	Pi	JRCHASE ORDI	ER#
7238		metro s			3.	78-T	
SAMPLERS/ (signature)		0- 00 3	BA- 7-18	C1 461C		ROJECT LOCAT	ION
A 15-	/				<b>*</b> 7~		Ane S
REMARKS	385			2.5	<u> </u>	DISPOSAL INFO	
					Di Re	spose after 30 da turn Samples	ıys
Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #		Analyse Requeste	×s
44 59989	2/5/88 1500	Hro	1	01	19		W ZJ
	\$100		1	1.沙腊尔克的			
The second secon		·	1			· · · · · · · · · · · · · · · · · · ·	
**************************************							
			<u> </u>			<del></del>	
						······································	
		<u>.</u>					
							27.5
			<del>                                     </del>	1,147 (1.48 <b>8</b>	NAME OF THE		
			<del>                                     </del>				
4	159420		V.J.s.	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
SIGNATURE	P	RINT NAME		COMPAN	Za si di si di si	Date	Time
Rolington hed by:	GENA	a A. Thong	Dogs	. Acu		2/6/58	1:50pm
Received of Toli-	MANU			Acw →&B'I		2/6/98	1:30 PM
Relinerished by:						·1	
Received by:							

FORMS/COC

06/09/97

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

February 18, 1998

#### **DUPLICATE COPY**

### **INVOICE #98ACU0218-2**

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M59989: Results of testing requested by Gerry Thompson for material submitted on February 6, 1998.

FEDERAL TAX ID (b) (6)

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

February 18, 1998

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on February 6, 1998 from your Metro Self Monitor, PO #M59989 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

Enclosures ACU0218R.DOC